Reply

While being grateful to Dr. Nagaraj Rao for taking the time and effort to write about my Viewpoint paper; Dr. Rao describes some clinical details of children with fever, loss of consciousness and seizures. All three features are common to both encephalitis and encephalopathy. That was the major lesson presented in some detail in my Viewpoint. I had clearly pointed out that brain damage (presenting as sequelae) on recovery is absent in Reye's syndrome but found only in encephalitis. Therefore, Dr. Rao's cases with neurological sequelae on recovery must be encephalitis and not encephalopathy. To insinuate that I had diagnosed Reye's syndrome in children with encephalitis is contrary to facts. Further evidence of encephalitis in Dr. Rao's cases included pleocytosis in the CSF and normal liver enzyme levels. These and other criteria were clearly shown in the Table giving characteristics of encephalitis versus Reye's syndrome.

There were cases in Dr. Rao's recent clinical experience that differed from other cases of typical encephalitis. Only some children had recovered with sequelae, not others. He also noted "suddenness of onset, high mortality occurring within 36-48 hours of onset" and was surprised. Unfortunately he does not give more details to distinguish their clinical diagnosis between encephalitis and encephalopathy. Serum ammonia and liver enzyme estimations were done only in a few cases, not all children. Liver biopsy was not done at all. There were also cases with "nil pleocytosis" in CSF. Did this "surprising" group of children, who had clearly different clinical and laboratory features from those with unquestionable encephalitis, have encephalitis or encephalopathy? Although the Viewpoint paper was to help readers to apply specific diagnostic criteria on individual cases and not on wholesale groups, Dr. Rao seems to have completely missed this point. His letter confirms my suspicion that pediatricians and neurologists were conflating encephalitis with encephalopathy.

If the case fatality of children with Japanese encephalitis (JE) is over 50% as admitted by Dr. Rao, there is something grossly wrong in diagnosis or management or both. With proper management, case fatality of JE should not exceed 10-20%. With poor management the case fatality is about 30%. On the other hand, the case fatality in Reye's syndrome exceeds 50%. Dr. Rao should review each of his recent cases using the criteria given in the Table in the Viewpoint paper and see if any case does not fit with the diagnosis of encephalitis. If so, he must check if any such case had features of encephalopathy. Clubbing all diseases with the three features of fever, loss of consciousness and seizures is unscientific. That was the lesson in the viewpoint, but it seems to have been lost on Dr. Rao.

There is no rule that Reye's syndrome cannot occur where JE is endemic. Reye's syndrome is of multiple aetiology but is clearly not due to one specific infection unlike JE, and certainly not due to brain infection of any kind. Therefore "endemicity" is an unsatisfactory attribute to be applied to its occurrence in a community. Sudden increases in its incidence has been recorded many times in the past. Thus variations in case distribution (endemicity or outbreak versus sporadic occurrence) cannot be used to distinguish encephalopathy from encephalitis. An interesting point in Dr. Rao's letter is regarding cases of hyperpyrexia in April and May. Interestingly, hyperpyrexia does occasionally occur in Reye's syndrome. Excluding Reye's

syndrome on the basis of absence of influenza and chickenpox reveals the confusion in the minds of some doctors. But if it persists after reading the viewpoint paper, the conclusion that it had not been read carefully is inevitable.

Dr. Rao has written that I had "described all these cases were due to epidemics of Reye's syndrome". I am at a loss to understand how someone could miss the statement in my paper–"In summary, different diseases of children affecting the brain and sensorium and causing death were clubbed together on account of the fact that they occurred in the same time period of May to July, assuming that all of them represented one epidemic". I have not concluded that all cases in children with brain disease were due to Reye's syndrome. If Dr. Rao concluded that all cases he had seen were due to encephalitis, he has not presented sufficient evidence to justify that conclusion. The scientific world needs evidence to accept conclusions, not mere opinions. Publication in a prestigious journal (like Indian Pediatrics) should not be taken to mean automatically acceptance by the scientific world. This applies equally to my viewpoint and Dr. Rao's Letter to the Editor.

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Extended Spectrum of b-Lactamase Mediated Resistance to Third Generation Cephalosporins Among *Klebsiellae pneumoniae* in Neonatal Septicemia

Neonatal septicemia is caused by variety of bacterial specie(1), of which *Klebsiella pneumoniae* is the predominant organism. Several out breaks of infection caused by *K. pneumoniae* isolates that are simultaneously resistant to broad-spectrum cephalosporins and aminoglycosides have been reported. Some of these multidrug resistant isolates produce "Extended Spectrum b-Lactamases" (ESbLs) that are able to hydrolyze expanded spectrum cephalosporins (*e.g.*, ceftriaxone, cefotaxime and ceftazidime) aztonam, and related oxyamino-b-lactums(2,3). Studies carried out in various part of India have reported prevalence of ESbL producing *klebsiella* isolates (3,4). The present study was conducted with an objective to examine the incidence of ESbL producing strains and multidrug resistant strains of *K. pneumoniae* isolated from 828 cases noeonatal septicemia from various neonatal care unit hospitals in Gulbarga.

Out of 828 cases studied, growth of bacteria was obtained in 346 (41.78%) blood samples. The most predominant organism was *K. pneumoniae* 96 (27.74%), followed by staphylococcus aureus 78 (22.54%), coagulase negative *S. aureus* (18.78%), *E. coli* 48 (13.87%) and other less frequent isolates. Antimicrobial susceptibility testing and double disk diffusion synergy testing was done to detect ESbL on all 96 isolates. *Table I* shows antibiotic resistance pattern of *K.pneumonia* isolates. All the 96 isolates were found to be resistant to a minimum of 3 antibiotics, hence these were considered multidrug resistant. 87.5% of the isolates showed resistance or decreased susceptibility to at least one of the 3GC and 64.6% to all the 3GC. All the isolates were found sensitive to